

REMARKS

Claims 1-3, 9 and 12-17 are rejected. Claims 4-8, 10 and 11 are objected to. Claims 1-17 are presently pending in the application. Favorable reconsideration of the application in view of the following remarks is respectfully requested.

The Applicants thank the Examiner for indicating that Claims 4-8, 10 and 11 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, since neither Burns nor Kobayashi teach or suggest (1) a latex polymer as recited in claim 4; (2) an additional layer between the hydrophilic image recording layer and the overcoat layer comprising, and between the subbing layer and image receiving layer, respectively as disclosed in claims 5-8; and (3) modified gelatin as recited in claims 10 and 11. For reasons discussed below, the Applicants believe that the independent Claims as filed should be allowed.

Restriction Requirement:

The Examiner has required restriction between Group I, claims 1-17, drawn to recording element, classified in class 428, subclass 195 and Group II, claims 18-27, drawn to method of printing on the recording element, classified in class 347, subclass 105. The Examiner states that the inventions are distinct from each other because of the following reasons: Inventions I and II are related as product and process of use and the inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the Examiner indicates that the product as claimed can be used in a materially different process of using that product, (e.g., using the recording element as wall paper) and, because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper. The Applicants respectfully disagree.

As stated by the Examiner, Group I, claims 1-17, are drawn to a recording element and Group II, claims 18-27, are drawn to a method of printing on the recording element. However, both independent claims claim a support having thereon a hydrophilic absorbing layer comprising succinylated gelatin and a

hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer. Therefore, it is suggested that commonality exists among the two Groups identified by the Examiner with respect to a support with a hydrophilic absorbing layer comprising succinylated gelatin and a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer. Coextensive searching of the Groups would not prove seriously burdensome to the Examiner, but would instead be most efficient. Therefore, it is respectfully requested that the Restriction Requirement be reconsidered and withdrawn and that all claims now pending be examined.

The Applicants confirm the telephone election of June 18, 2003 in which a provisional election was made with traverse to prosecute the invention of Group I, claims 1-17. Claims 18-27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Reason

Rejection of Claims 1, 2, 13 and 15-17 Under 35 U.S.C. §102(a):

The Examiner has rejected Claims 1, 2, 13 and 15-17 under 35 U.S.C. 102(a) as being anticipated by Kobayashi et al. (US 6,214,458 B1), as Kobayashi discloses an image recording sheet for ink jet printing comprising a support film, an image receiving layer provided on one side of the support and a white coated layer provided on the other side of the support with a subbing layer containing gelatin provided between the support film and the image receiving layer, which subbing layer is equivalent to the claimed hydrophilic absorbing layer, and the image receiving layer is equivalent to the claimed hydrophilic overcoat polymer layer. The Examiner also indicates that the image receiving layer comprises a resin such as water soluble resin and inorganic particles and/or organic particles, methyl cellulose is an example of the water soluble resin, the organic particle can be a polymer latex, the ratio of resin to latex is 9:1 to 5:5, wherein this value is equivalent to the claimed value, the image receiving layer has a thickness ranging from 1 to 50 μm , wherein the thickness overlaps with the claimed range, and the image receiving layer further comprises a mordant to fix dyes.

Kobayashi discloses an image recording sheet which has a high glossiness and forms on its surface an image of a high quality, especially from the viewpoint of a high glossiness and a good graininess. The image recording sheet

is composed of a transparent support film, a transparent image-receiving layer provided on one surface of the support film, and a white coated layer provided on the other surface of the support film. Kobayashi fails to disclose the use of succinylated gelatin in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex.

The present invention relates to a support having thereon a hydrophilic absorbing layer of succinylated gelatin and a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer which produces an ink recording element which demonstrates improved image quality, less differential gloss, and, surprisingly, improved laminate adhesion when compared to the elements of the prior art.

A claim is anticipated under 102(a) only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Kobayashi makes no mention of succinylated gelatin for use in the hydrophilic absorbing layer. Kobayashi also fails to mention the use of succinylated gelatin in the hydrophobic absorbing layer in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer. As a result, since Kobayashi makes no express reference to a succinylated gelatin or succinylated gelatin in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer, the rejection should be withdrawn.

Rejection Of Claims 3, 9, 12 and 14 Under 35 U.S.C. §103(a):

The Examiner has rejected Claim 3, 9, 12 and 14 under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (US 6,214,458 B1) in view of Burns et al. (US 6,089,704) and Peternell et al. (US 6,420,016 B1), since Kobayashi discloses an image recording sheet comprising a support film, an image receiving layer provided on one side of the support and a white coated layer provided on the other side of the support, a subbing layer containing gelatin is provided between the support film and the image receiving layer, the subbing layer is equivalent to the claimed hydrophilic absorbing layer, and the image receiving layer is equivalent to the claimed hydrophilic overcoat polymer layer. The Examiner indicates that, with respect to claim 14, since Kobayashi expressly fails to disclose modified gelatin to be contained in the subbing layer, the Examiner interprets the gelatin in the

subbing layer as unmodified gelatin, the image receiving layer comprises a resin such as water soluble resin and inorganic particles and/or organic particles, the organic particle can be polymer latex (col. 5, line 30). The Examiner continues that, although Kobayashi does not disclose the components of the polymer latex as recited in claim 3, Burns teaches an ink jet recording element comprising a support, a hydrophilic image recording layer (equivalent to the claimed hydrophilic absorbing layer) on the support, and an overcoat layer comprising a vinyl latex polymer (equivalent to the claimed hydrophilic overcoat polymer layer) on the hydrophilic image recording layer, the latex polymer has the following formula:



wherein:

A is a monomer such as hydroxyethylacrylate, hydroxyethylmethacrylate, acrylic acid, methacrylic acid, acrylic acid, vinyl alcohol, acrylamide or methacrylamide;

B is a monomer such as methylacrylate, methylmethacrylate, butylacrylate, butylmethacrylate, ethylacrylate, ethylmethacrylate, isopropylacrylate, cyclohexylacrylate, norbornylacrylate, vinylacetate or vinylneodeconate;

C is a monomer such as trimethylammonium ethylacrylate chloride, trimethylammonium ethylacrylate methylsulfate, trimethylammonium methylacrylate chloride or trimethylammonium ethylmethacrylate methylsulfate;

x is from about 10 to about 80 mole %;

y is from about 10 to about 80 mole %; and

z is from about 2 to about 20 mole %.

The Examiner notes that Kobayashi and Burns are analogous art because they are from the same field of endeavor that is the ink jet recording medium art, and therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the polymer latex of Burns with the invention of Kobayashi to provide ink jet recording element which as a high gloss and fast drying time without having a high viscosity. The Examiner also notes that, although Kobayashi fails to disclose a pigskin gelatin in the subbing layer containing gelatin, and the reference fails to disclose the thickness of the subbing layer, Peternell teaches an ink jet recoding layer comprising a support, a gelatin containing absorption layer on the support, and at least on ink receiving layer on the absorption layer, the absorption

layer comprises pigskin gelatin, has a dry thickness ranging from 3 to 20 um, wherein this range overlaps with the claimed range, Kobayashi and Peternell are analogous art because they are from the same field of endeavor that is the ink jet recording medium art, and therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the gelatin containing absorption layer of Peternell with the invention of Kobayashi for the fixation of the ink liquid. The Applicants respectfully disagree.

Burns discloses an ink jet recording element comprising a support, a hydrophilic image- recording layer, and an overcoat layer comprising a vinyl latex polymer having the formula:



wherein: A is a hydrophilic, vinyl monomer; B is a hydrophobic, vinyl monomer; C is a cationic monomer; x is from about 1 to about 80 mole %; y is from about 10 to about 80 mole %; and z is from about 2 to about 20 mole %. The inkjet image recording element of Burns yields printed images with high optical densities, excellent image quality, higher gloss, and fast drying. Burns fails to mention succinylated gelatin or succinylated gelatin in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer.

Peternell discloses a recording sheet for ink jet printing comprising a support having at least one ink receiving layer and a gelatin containing absorption layer, characterized in that the absorption layer is situated between the support and the ink receiving layer and that it comprises a micelle forming compound. The invention of Peternell relates to transmissive or reflective recording sheets of at least two layers, suitable for use in an ink jet printing process, where inks consisting of at least one dye and an ink liquid are used, and to coating compositions for the preparation of ink receiving layers for this process. Peternell fails to teach, suggest or disclose succinylated gelatin or succinylated gelatin in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer.

To establish a prima facie case of obviousness requires, first, there must be some suggestion or motivation, either in the reference itself, or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable

expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998).

As discussed above, Kobayashi fails to teach succinylated gelatin or succinylated gelatin in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer. The references to Burns and Peternell also fail to teach, disclose or suggest succinylated gelatin or succinylated gelatin in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer. As a result, no combination of the reference discloses all of the present claims limitations.

None of the references discloses, teaches or suggests that succinylated gelatin or succinylated gelatin in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer produces. There are a very large number of compounds and methods known to those skilled in the art which may be utilized in ink recording elements. There are, further, a tremendous number of types of gelatin and hydrophilic polymers. Photographic systems are very complex and unpredictable and the fact that two technologies are independently useful does not indicate that the combination will be useful or beneficial. In addition, none of the references teaches increased adhesion resulting from the combination of particular types of gelatins and hydrophilic polymers. At most, the Examiner has set forth an argument that it would be "obvious to try" the combination of the cited references. Therefore, there is no reasonable expectation of success found in any combination of the cited references.

Kobayashi discloses an image recording sheet composed of a transparent support film, a transparent image-receiving layer provided on one surface of the support film, and a white coated layer provided on the other surface of the support film, which has a high glossiness and forms on its surface an image of a high quality, especially from the viewpoint of a high glossiness and a good graininess. Burns discloses an ink jet recording element comprising a support, a hydrophilic image- recording layer, and an overcoat layer comprising a vinyl latex polymer, which yields an element having printed images with high optical

densities, excellent image quality, higher gloss, and fast drying. Peternell discloses a transmissive or reflective recording sheet for ink jet printing comprising a support having at least one ink receiving layer and a gelatin containing absorption layer, characterized in that the absorption layer is situated between the support and the ink receiving layer and that it comprises a micelle forming compound. There is no suggestion or motivation in the references to modify the reference or to combine reference teachings to produce an ink recording element containing succinylated gelatin or succinylated gelatin in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer which produces an element having improved image quality, less differential gloss, and, surprisingly, improved laminate adhesion when compared to the elements of the prior art.

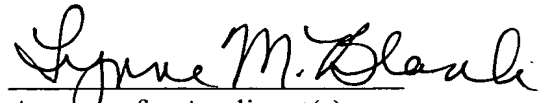
In addition, the present invention produces surprisingly, improved laminate adhesion when compared to the elements of the prior art. Table 2 on page 22 of the specification as originally filed illustrates the surprising improved laminate adhesion results. The inventive sample, inventive sample 1, which contains succinylated gelatin in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer, has better laminate adhesion than control example 8, containing no succinylated gelatin, control example 9, containing no cellulose ether, control examples 4, 5, and 6, containing no vinyl latex polymer. The attached Declaration of Romano includes additional evidence illustrating that succinylated gelatin offers surprising advantages over conventional modified or unmodified gelatin from bovine or pig sources.

In summary, the references fail to teach, disclose or suggest the use of succinylated gelatin or succinylated gelatin in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer which produces an element having improved image quality, less differential gloss, and, surprisingly, improved laminate adhesion when compared to the elements of the prior art. The references also provide no motivation to combine and no expectation of success beyond an "obvious to try" concept. In addition, there is evidence of unexpected results with the use of succinylated gelatin with respect to laminate adhesion as compared to other types of gelatin and the use of succinylated gelatin in combination with a hydrophilic overcoat polymer layer comprising cellulose ether and vinyl latex polymer which produces an element

having improved image quality, less differential gloss, and, surprisingly, improved laminate adhesion when compared to the elements of the prior art. Therefore, the Applicants believe the rejection should be reconsidered and withdrawn.

It is believed that the foregoing is a complete response to the Office Action and that the claims are in condition for allowance. Favorable reconsideration and early passage to issue is therefore earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, reading "Lynne M. Blank". The signature is written in dark ink and is positioned above a horizontal line.

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